**Name**

Dr. Koppoju Suresh

**Designation**

Senior Scientist (Contract)

**Qualification**

M.Scs. (Physics), Ph.D. (Physics)

**Research areas of interest**

Investigation of microstructure using small angle x-ray/ neutron scattering (SAXS/ SANS) and transmission electron microscopy (TEM) techniques, High energy and high performance rare earth permanent (NdFeB and SmCo) and ultra-soft magnets

**List of journal publications**

1 Microstructural changes upon annealing in ODS-strengthened ultrafine grained ferritic steel
Z. Oksiuta, P. Kozikowaski, M. Lewandowska, M. Ohnuma, K. Suresh, K. J. Kurzydlowski
Journal of Material Science, (2013); DOI 10.1007/s10853-013-7255-3

2 Nanostructure Characterization of Co-Pd-Si-O Soft Magnetic Nanogranular Film using Small-Angle X-ray and Neutron Scattering
Yojiro Oba, Masato Ohnuma, Shigehiro Ohnuma, Michihiro Furusaka, Suresh Koppoju, Shin Takeda
Journal of Magnetism and Magnetic Materials, 333 (2013) 45-51

3 Facile fabrication of three-dimensional nanoporous ferrosilicates with high iron content and their magnetic properties.
Pavuluri Srinivasu, Koppoju Suresh, Suresh K. Bharagava and Mannepalli Lakshmi Kantam
Dalton Transaction, 2013, under review (2013)

4 Relaxation studies of amorphous alloys with creep induced magnetic and structural anisotropy
Pawel Kozikowski, Masato Ohnuma, Giselher Herzer, Christian Polak, Viktoria Budinsky, Suresh Koppoju, Malgorzata Lewandowska, Krzysztof J. Kurzydlowski
Scripta Materialia, 67 (2012) 763-766

5 Structural anisotropy of amorphous alloys with creep-induced magnetic anisotropy
M. Ohnuma, G. Herzer, P. Kozikowski, C. Polak, V. Budinsky, S. Koppoju,
Acta Materialia 60 (2012) 1278–1286

6 Quantitative analysis of inclusions in low carbon free cutting steel using small-angle X-ray and neutron scattering
Y. Oba, S. Koppoju, M. Ohnuma, Y. Kinjo, S. Morooka, Y. Tomota, J. Suzuki, D. Yamaguchi, S.

Koizumi, M.Sato and T. Shiraga,
ISIJ International, Vol.52 (2012), No. 3, P458.

7 Quantitative Analysis of Precipitate in Vanadium-microalloyed Medium Carbon Steels Using Small-angle X-ray and Neutron Scattering Methods
Yojiro OBA, Suresh KOPPOJU, Masato OHNUMA, Toshio MURAKAMI, Hitoshi HATANO, Kaoru SASAKAWA, Amane KITAHARA and Jun-ichi SUZUKI
ISIJ International, Vol. 51 (2011), No. 11, pp. 1852–1858

8 Strong correlation between structural, magnetic and transport properties of non-stoichiometric Sr2FexMo2−xO6 (0.8 ≤ x ≤ 1.5) double perovskites
Y. Markandeya, K. Suresh, G. Bhikshamaiah,
Journal of Alloys and Compounds 509 (2011) 9598– 9603

9 Microstructural studies on melt spun Sm-Co-Fe-Zr ribbons
K. Suresh, R Gopalan, DV. Sridhara Rao, AK Singh,K Muraleedharan and V Chandrasekaran
Intermetallics 18 (2010) 2244

10 Probing Ar ion induced nanocavities/bubbles in silicon by small-angle X-ray scattering
Koppoju Suresh, Masato Ohnuma, Oba Yojiro , Kishimoto Naoki , Das Pabitra , Chini Tapas Kumar
Journal of Applied Physics 107 (2010) 073504

11 Consolidation of hydrogenation–disproportionation–desorption–recombination processed Nd–Fe–B magnets by spark plasma sintering
K. Suresh, T. Ohkubo, Y.K. Takahashi, K. Oh-ishi, R. Gopalan, K. Hono, T. Nishiuchi, N. Nozawa and
S. Hirosawa
Journal of Magnetism and Magnetic Materials, 321 (2009) 3681 – 3686

12 Anisotropic Nd-Fe-B nanocrystalline magnets processed by spark plasma sintering and in-situ hot pressing of hydrogenation–decomposition–desorption–recombination powder
R Gopalan, H. Sepehri-Amin, K. Suresh, T.Ohkubo, K.Hono, T. Nishiuchi, N. Nozawa and S. Hirosawa
Scripta Materialia, 61(2009) 978

13 Amorphization, nanocrystallization and magnetic properties of mechanically milled Sm-Co magnetic powders
R. Gopalan, K. Suresh, D.V. Sridhara Rao, A. K. Singh, N.V. Rama Rao, G. Bhikshamaiah, V. Chandrasekaran
International Journal of Materials Research (formerly: Zeitschrift fuer Metallkunde) 99 (2008) 733

14 Structural and Mössbauer studies on mechanical milled $SmCo_5$/a-Fe nanocomposite magnetic powders
P. Saravanan, M. Manivel Raja, R. Gopalan, N.V. Rama Rao, K. Suresh, D.V. Sridhara Rao, V. Chandrasekaran
Intermetallics, 16 (2008) 636-641

15 Phase formation, microstructure and magnetic properties investigation in Cu and Fe substituted SmCo5 meltspun ribbons
K. Suresh, R. Gopalan, G. Bhikshamaiah, A.K. Singh, D.V. Sridhara Rao, K. Muraleedharan, V. Chandrasekaran
Journal of Alloys and Compounds, 463 (2008) 73-77

16 Coercivity of $Sm(Co_{0.9}Cu_{0.1})_{4.8}$ melt-spun ribbons
K. Suresh, R. Gopalan, A. K. Singh, G. Bhikshamaiah, and K. Hono
Journal Alloys and Compounds, 436 (2007) 358-363

17 X-ray Diffraction Characterization of Mechanically Milled SmCoFe Nano Magnetic Powders by Rietveld Refinement
K. Suresh, A. K. Singh, R. Gopalan and V. Chandrasekaran
Proceedings of Advanced X-ray Techniques in Research and Industry, ed. A.K. Singh, IOS Press,
Amsterdam, The Netherlands, (2005) 503-510, (ISBN 1-58603-537-1)

18 Studies on $Sm(Co_{0.9-x}Fe_xCu_{0.1})_{4.8}$ Nano Composite Magnetic Powder
K. Suresh, R. Gopalan, A. K. Singh, K. Muraleedharan, D.V. Sridhara Rao and V. Chandrasekaran
Indian J. Physics, 78A (2004) 115-119

19 Metallurgical and Magnetic Characterization of Mechanically Milled $Sm(Co_{0.9-x}Fe_xCu_{0.1})_{4.8}$ Alloys
R. Gopalan, K. Suresh, A. K. Singh, and V. Chandrasekaran
Scripta Materialia, 48 (2003) 1555-1559

20 Study of Es occurrences during meteor shower periods at Hyderabad by using FM radio signals
G.Yellaiah, K.Suresh, and B. Raghavender
Bull. Astro. Soc. Of India. 29 (2001), 251-257

21 Electrical conductivity of gadolinium substituted Mn-Zn ferrites
D. Ravinder and K. Suresh
Materials Letters, 44 (2000) 253-255

22 Electrical transport properties of gadolinium substituted Mn-Zn ferrites
D. Ravinder, K. Suresh and S.Srinivas Rao
Indian J. Physics, 74A (3) (2000) 339-341

**Affiliation to Professional Societies**

- Life member of Magnetic Society of India (MSI), Hyderabad, India
- Life member of Indian Neutron Scattering Society (INSS), Mumbai, India
- Life member of Indian Institute of Metals (IIM), Kolkata, India
- Life member of Electron Microscopy Society of India, New Delhi, India

**Awards and Honors**

- Project Assistant Fellowship 1998, Department of Science and Technology (DST), Ministry of Science and Technology, India
- Junior Research Fellowship 2000, Defence Research Development Organization (DRDO), Ministry of Defence, India
- Senior Research Fellowship 2002, Defence Research Development Organization (DRDO), Ministry of Defence, India
- Visiting Student Fellowship 2004, National Institute for Materials Science (NIMS), Tsukuba, Japan (to carry out part of Ph.D work)
- Young Scientist Fellowship 2005-2006, Andhra Pradesh Council for Scientist and Technology (APCOST), Government of Andhra Pradesh, India

**Contact Information**

Centre for Mechanical and Microstructural Characterization (CMCT)

Phone (off.): 040 – 2445 2486

Fax (off.): 040 – 2444 2699

Email: sureshkoppoju@arci.res.in